SECTION 6.0 – COMPLIANCE WITH REGULATORY STANDARDS AND REQUIREMENTS

6.0 COMPLIANCE WITH REGULATORY STANDARDS AND REQUIREMENTS

This section includes a description of the primary regulations associated with the implementation of the preferred alternative aquatic disposal sites. Compliance with state and federal standards and regulations for aquatic disposal are discussed as they relate to the preferred alternatives. The preferred alternative for the New Bedford/Fairhaven Harbor includes one CAD disposal site, PIN. Each of the following sections describes the relationship of the standards and requirements discussed as they relate to CAD disposal.

6.1 Compliance with State Standards/Regulations

6.1.1 Wetlands Protection Act and Regulations (310 CMR 10.00)

The preferred alternative CAD site PIN is located in a resource area protected by the Massachusetts Wetlands Protection Act (WPA), specifically Land Under the Ocean (LUO). The PIN site also lies within Designated Port Areas (DPAs). The WPA is administered on the local level by the Conservation Commission, which implements the Massachusetts Wetlands Regulations at 310 CMR 10.00.

CAD Disposal - A Notice of Intent (NOI) application to the New Bedford and Fairhaven Conservation Commissions will be required for proposed CAD disposal activities at the PIN sites, as the current configuration lie in both jurisdictions. Orders of Conditions (OOC) need to be issued by the appropriate Conservation Commission(s) to permit the work for the PIN alternative.

6.1.1.1 Designated Port Areas

The Wetlands Regulations at 310 CMR 10.26 state that LUO in DPAs is likely to be significant to marine fisheries, storm damage prevention and flood control. LUO in DPAs often serves to provide support for coastal engineering structures such as seawalls and bulkheads, which have replaced natural protection for upland areas from storm damage and flooding. Projects affecting LUO in DPAs should not result in alteration of wave and current patterns so as to affect the stability of such structures. The preferred alternative PIN site western planning edge is very near the DPA so that specific PIN CAD developments on that side of the area should pay close attention to surveyed project boundaries.

CAD Disposal - Water column depth at the PIN CAD disposal site may play an important role in determining localized current velocities. Current velocities typically behave in a logarithmic relationship with water column depth. Therefore, currents further from the surface experience increasing frictional retardation, particularly as currents approach the sediment boundary layer. Given this phenomena, the CAD preferred alternative site will be exposed to smaller current velocities and less potential sediment resuspension forces than sites at shallower depths. Coarser grained cohesive material also has the effect of greater frictional and gravitational forces holding the grains on the seabed. Thus a greater critical shear stress would be required to resuspend coarse grain cap material than fine grain silty sediments.

Reduced circulation may be beneficial from the standpoint of cap integrity since resuspension is less likely, but by the same effect this localized condition may also contribute to reduced water quality. Typically, the impact to water quality from dredged material disposal is short-term. These impacts typically include localized degradation in dissolved oxygen (DO), total suspended solids (TSS), pH, light penetration, and contaminant concentrations. Conditions typically return to ambient conditions within hours to days, depending on the amount, composition, and frequency of the disposed material. Total suspended solids may increase dramatically due to the entrainment of fine material in the water column. A plume typically forms whereby material may be advected short distances from the disposal site. A reduction in DO is typical as common constituents of sediments are oxidized and organic material is metabolized by microbial activity at the sediment-water interface. High suspended solid concentrations have the effect of attenuating ambient light, thereby reducing penetration. Finally, contaminants sorbed to sediment particles may be dissolved by the aquatic environment through physical disturbance of the material as the sediment stream is released from the scow.

Detailed modeling of dredged material disposal events was performed for the FEIR to determine short term local water quality impacts associated with CAD options in Section 5-0 (ASA, 2003). The preferred alternative site has been located so as to provide a sufficient distance to the nearest coastal engineering structure. No impact on the stability of the harbor bottom that would affect the support of the nearby coastal engineering structures is expected, and therefore no adverse effect on any structure's ability to serve a storm damage prevention or flood control functions in the area.

6.1.1.2 Land Under the Ocean

Land Under the Ocean (LUO) is defined as *"... land extending from the mean low water line seaward to the boundary of a municipality's jurisdiction and includes land under estuaries,"* within the Wetlands Regulations at 310 CMR 10.25(2). LUO is significant to the protection of marine fisheries and projects which affect LUO shall not cause adverse effects by altering the bottom topography so as to increase storm damage or erosion of coastal beaches, banks, dunes, of marshes. They must, among other things, also have no adverse effects on marine fisheries or wildlife habitat caused by alterations in water circulation, destruction of eelgrass beds, alterations in the distribution of sediment grain size, changes in water quality, or alterations of shallow submerged lands with high densities of polychaetes, mollusks, or macrophytic algae.

As described above, the aquatic preferred alternative site is expected to have no long-term adverse effect on marine fisheries caused by localized alterations in water circulation or changes in water quality. The sites are not located in existing eelgrass beds.

CAD Disposal - Any impacts to benthic organisms at the CAD disposal site will be temporary and reversible (Section 3.6). Immediately after disposal, the sites will be devoid of benthic populations, because the benthos will have been removed by overdredging or buried under disposed sediments. However, most benthic species are capable of rapid dispersal and colonization by means of planktonic larvae, and will quickly recolonize disturbed areas.

6.1.1.3 Land Containing Shellfish

Land Containing Shellfish (LCS) is defined as *"... land under the ocean, tidal flats, rocky intertidal shores, slat marshes or land under salt ponds when any such land contains shellfish,"* within the Wetlands Regulations at 310 CMR 10.34(2). LCS is found to be significant to the protection of marine fisheries, when such areas have been identified and mapped by the local conservation commission or by DEP in consultation with DMF. Documentation required for this designation includes recording the density of shellfish, size of the area and the historical and current importance of the area to commercial and recreational fishing.

CAD Disposal - The preferred alternative disposal site is located within areas that have been designated as areas of LCS as specified in the Wetlands Protection Act and Regulations. As described above, the preferred CAD alternative disposal sites are not expected to have an adverse permanent effect on marine fisheries caused by localized alterations in water circulation, alterations in relief elevation, sediment grain size or changes in water quality. Implementation of either of the preferred CAD disposal alternatives will require mitigation for impacts to LCS (to be developed with regulatory agencies).

6.1.2 Water Quality Certification (314 CMR 9.00)

The federal Clean Water Act (CWA) gives states the authority to review projects that must obtain federal licenses or permits and result in a discharge to state waters, and requires a 401 Water Quality Certification to ensure that the project complies with state water quality standards and other appropriate requirements of state law. As a project which will require disposal of more than 5,000 cubic yards of dredged material, the DMMP will require a major dredge project certification (BRP WW 07) from the Department of Environmental Protection, Division of Wetlands and Waterways. The application will require a description of the proposed activity, detailed plan view and section, sediment analysis, and description of the characteristics of the proposed disposal site. The DEP may then put conditions on the dredging and disposal process designed to ensure compliance with water quality standards.

Per the provisions of 314 CMR 9.06(1), no discharge of dredged material will be allowed if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic environment than the proposed discharge. As documented in this FEIR, the proposed preferred alternative aquatic disposal site in New Bedford/Fairhaven Harbor is the least environmentally damaging practicable alternative (LEDPA) for the aquatic disposal of UDM from the dredging projects identified in the harbor.

Per the requirements of 314 CMR 9.06(2), the proposed discharge of dredged material will not be permitted unless the "appropriate and practical steps" are taken to minimize potential adverse impacts to land under water. The discharge of UDM and subsequent capping of the material at the PIN CAD preferred alternative disposal site in New Bedford/Fairhaven Harbor will result in the cleanup and capping of contaminated sediments at the site, and will result in a cleaner harbor bottom.

Per the requirements of 314 CMR 9.06(3), no discharge of dredged material will be allowed in Outstanding Resource Waters. The selected preferred alternative aquatic disposal site PIN in New Bedford/Fairhaven Harbor is not located in Outstanding Resource Waters, as the water quality classification of the Inner Harbor is Class SB, due to the presence of combined sewer overflows and is a restricted shellfishing area. The classification of the Outer Harbor, east of the New Bedford/Fairhaven boundary is SA and open to shellfishing (314 CMR 4.06, Table 28).

Finally, no discharge of dredged material will be allowed, per the provisions of 314 CMR 9.06(7), where the discharge meets the criteria for evaluation as specified above, but would result in "substantial adverse impacts" to the physical, chemical or biological integrity of surface waters of the Commonwealth. As described in this FEIR, disposal of UDM at the preferred alternative disposal sites in New Bedford/Fairhaven Harbor will not result in substantial adverse impacts to surface waters in the harbor.

6.1.3 MGL Chapter 91 (Public Waterfront Act) and Waterways Regulations (310 CMR 9.00)

Dredging activities to create a CAD site for UDM, involving the subaqueous placement of unconsolidated material below the mean low water mark, requires a waterways permit, under the provisions of the Waterways Regulations at 310 CMR 9.05(2). Regulatory requirements for a Waterways permit are less stringent than those for a Waterways License, required for activities involving fill or structures in tidelands. Dredging activities for purposes such as navigation channels, boat basins, and other water-dependent purposes, and the subaqueous placement of unconsolidated material from those dredging projects below the mean low water mark, are considered a water-dependent project, under the provisions of 310 CMR 9.12(2)(a).

Waterways permits are issued only if certain requirements specified in the Waterways Regulations at 310 CMR 9.31 to 9.40 are met. Section 9.31 states that no permit shall be issued unless the project serves a "proper public purpose which provides greater public benefit than detriment to the rights of the public" in tidelands. As a water-dependent use project, the construction and use of the proposed preferred sites in New Bedford/Fairhaven Harbor are presumed to meet this standard.

Because the dredging related activities of alternative site requires Waterways permits, the provisions of 310 CMR 9.32, Categorical Restrictions on Fill and Structures, do not apply. As required under section 9.33, Environmental Protection Standards, construction and use of the proposed aquatic sites will comply with the applicable environmental regulatory programs of the Commonwealth, including: MEPA; the Wetlands Protection Act; the Massachusetts Clean Waters Act (MGL c. 21, s. 26-53 and the regulations for Water Quality Certifications, 314 CMR 9.00); Marine Fisheries Laws (MGL Chapter 130); and the Underwater Archaeological Resources Act (MGL c. 91 and c. 6, s. 179-180 and 310 CMR 22.00).

The preferred alternative site is not located on private tidelands or filled Commonwealth tidelands and do not need to be deemed in compliance with the Zoning Ordinance. The preferred alternative disposal site for New Bedford/Fairhaven Harbor conform to the provisions of Harbor Plan, in that the construction and use of the sites for the disposal of UDM from the dredging projects in Harbor supports the stated goals of the Harbor Plan to encourage identified

maintenance and improvement dredging projects. The provisions of 310 CMR 9.34, Conformance with Municipal Zoning and Harbor Plans, are met by construction and use of the sites.

The provisions 310 CMR 9.35, Standards to Preserve Water-Related Public Rights, are applicable to the proposed alternative site in New Bedford/Fairhaven Harbor. Construction and use of the disposal sites will not significantly interfere with existing navigation. Use of the sites will also not significantly interfere with the public rights of free passage over the water, nor will it interfere with access to any city landings, easements or any other form of public access to New Bedford/Fairhaven Harbor. Use of the preferred alternative PIN site will not significantly interfere with the public rights of fishing and fowling, and being a subaqueous site, will not interfere with on-foot passage, swimming or boating around the site.

Section 9.36, Standards to Protect Water-Dependent Uses, also applies to a portion of the preferred alternative site in New Bedford/Fairhaven Harbor. Construction and use of the preferred alternative will result in the preservation of the availability and suitability of tidelands in New Bedford/Fairhaven Harbor which are reserved as locations for maritime industrial uses and other water-dependent uses in New Bedford/Fairhaven Harbor. The site is located so that there will be no interference with private access to littoral property from New Bedford/Fairhaven Harbor, or to approach the harbor from the private property. Use of the PIN CAD site will not result in disruption to existing water-dependent uses in New Bedford/Fairhaven Harbor, nor will it displace any existing water-dependent uses. The preferred alternative does not include fill or structures for nonwater-dependent or water-dependent non-industrial uses which preempt any water-dependent industrial use within the New Bedford/Fairhaven Harbor DPA.

The provisions of section 9.37, Engineering and Construction Standards, will be met through the development of a sound engineering design for the aquatic preferred alternative disposal site. Construction and use of the proposed aquatic sites will not interfere with the ability to perform future maintenance dredging of the federal channel.

The preferred alternative disposal site ism not a Recreational Boating Facility nor a Marina, Boatyard or Boat Ramp, therefore the provisions of 310 CMR 9.39 and 9.39 do not apply.

Finally, the provisions of Section 9.40, Standards for Dredging and Dredged Material Disposal, also apply to the proposed alternative disposal PIN CAD site in New Bedford/Fairhaven Harbor. If the western edge of PIN CAD site overlaps the DPA, the prohibition on dredging to a mean low water depth greater than 20 feet in 310 CMR 9.40(1)(a) does not apply, otherwise the prohibition applies. The final capping will be equivalent to natural as found conditions when finally completed which are very unlikely to be deeper than 20 feet. The project also serves a commercial navigation purpose of federal and state significance, allowing the maintenance dredging of the main federal channel. The sites have been located so as to avoid shellfish beds to the extent possible, significant fisheries resources, and submerged aquatic vegetation such as eelgrass beds. Shellfish mitigation plans have been recommended in Section 7-0 of this FEIR. DMF will set the mitigation plan in coordination with New Bedford and/or Fairhaven Shellfish Constable(s). Dredging activities necessary to construct any specific project CAD cell at PIN

will comply with the operational requirements specified in section 9.40(3), in that the depth of the disposal sites will be that necessary to accommodate the anticipated volume of UDM from New Bedford/Fairhaven Harbor, therefore accommodating the navigational dredging needs of the harbor users.

Operational procedures will be established for use of the PIN CAD site which will meet the intent of the requirements specified in section 9.40(4), Operational Requirements for Dredged Material Disposal and 9.40(5), Supervision of Dredging and Disposal Activity. Section 8.0 of this FEIR outlines the monitoring and management guidelines to be used to confirm compliance with permit standards and long-term sequestering of UDM for the preferred alternative site.

6.1.4 Coastal Zone Management (301 CMR 21.00)

This project will be required to complete a federal consistency certification for review by CZM, describing the project and demonstrating consistency with CZM's program policies and management principles. The CZM Program Plan establishes program policies which embody coastal policy for the Commonwealth of Massachusetts. Recognition of these statements as Massachusetts coastal policy is formalized in Memoranda of Understanding (MOU) between CZM and state environmental agencies. Projects subject to federal consistency review must be consistent with CZM program policies. CZM enforces its program policies through existing Massachusetts statutes and their implementing regulations.

In addition, the federally-approved CZM Program Plan lists management principles. These policy statements are not currently enforceable through existing state statutes and regulations. They are published as guidance to proponents of activities in the Coastal Zone, representing CZM's preferred policy direction.

Program policies cover issue areas such as Water Quality (Section 7.1.4.1), Habitat (Section 7.1.4.2), Protected Areas (Section 7.1.4.3), Coastal Hazards (Section 7.1.4.4), Port and Harbor Infrastructure (Section 7.1.4.5), Public Access (Section 7.1.4.6), Energy (Section 7.1.4.7), Ocean Resources (Section 7.1.4.8), and Growth Management (Section 7.1.4.9). Construction and use of the preferred alternative aquatic disposal site within New Bedford/Fairhaven Harbor involve the CZM policies on Water Quality and Habitat.

6.1.4.1 Water Quality

Water Quality Policy #1 - Ensure that point-source discharges in or affecting the coastal zone are consistent with federally approved state effluent limitations and water quality standards.

Water Quality Policy #2 - Ensure that nonpoint pollution controls promote the attainment of state surface water quality standards in the coastal zone.

Water Quality Policy #3 - Ensure that activities in or affecting the coastal zone conform to applicable state and federal requirements governing subsurface waste discharges.

Conformance: Use of the aquatic preferred alternative disposal site in New Bedford/Fairhaven Harbor will be consistent with the Water Quality Policies. Disposal of UDM at a subaqueous site is not considered to be a subsurface discharge of waste.

6.1.4.2 Habitat

Habitat Policy #1 - Protect coastal resource areas including salt marshes, shellfish beds, dunes, beaches, barrier beaches, salt ponds, eelgrass beds, and fresh water wetlands for their important role as natural habitats.

Habitat Policy #2 - Restore degraded or former wetland resources in coastal areas and ensure that activities in coastal areas do not further wetland degradation but instead take advantage of opportunities to engage in wetland restoration.

Conformance: The preferred site is located in areas of New Bedford/Fairhaven Harbor which avoids most of the protected coastal resource areas, including subtidal resources such as eelgrass beds, to the greatest extent practicable. There are no nearby salt marshes, dunes, beaches or barrier beaches, salt ponds or freshwater wetlands which would be affected by use of the disposal site.

However, direct impacts to shellfish beds in the vicinity would result from the disposal of UDM. The effects of the preferred alternative to quahogs, soft shell clams and oyster habitat would be temporary because of the relatively strong recolonization rate of these species, especially if seed stock is used in the rehabilitation of the resource. Monitoring the success of the rehabilitation would be necessary during the recovery period.

6.1.4.3 Protected Areas

Protected Areas Policy #1 - Preserve, restore, and enhance complexes of coastal resources of regional or statewide significance through the Areas of Critical Environmental Concern program.

Protected Areas Policy #2 - Protect state and locally designated scenic rivers and state classified scenic rivers in the coastal zone.

Protected Areas Policy #3 - Ensure that proposed developments in or near designated or registered historic districts or sites respect the preservation intent of the designation and that potential adverse effects are minimized.

Conformance: Per the requirements of 314 CMR 9.06(3), no discharge of dredged material will be allowed in Outstanding Resource Waters. The PIN preferred alternative aquatic disposal site in New Bedford/Fairhaven Harbor are not located in Outstanding Resource Waters, as the water quality classification of the Inner Harbor is Class SB, due to the presence of combined sewer overflows and is a restricted shellfishing area.

6.1.4.4 Coastal Hazards

Coastal Hazards Policy #1 - Preserve, protect, restore, and enhance the beneficial functions of storm damage prevention and flood control provided by natural coastal landforms, such as dunes, beaches, barrier beaches, coastal banks, land subject to coastal storm flowage, salt marshes, and land under the ocean.

Coastal Hazards Policy #2 - Ensure construction in water bodies and contiguous land areas will minimize interference with water circulation and sediment transport. Approve permits for flood or erosion control projects only when it has been determined that there will be no significant adverse effects on the project site or adjacent or downcoast areas.

Coastal Hazards Policy #3 - Ensure that state and federally funded public works projects proposed for location within the coastal zone will:

- not exacerbate existing hazards or damage natural buffers or other natural resources,
- be reasonably safe from flood and erosion related damage, and
- not promote growth and development in hazard-prone or buffer areas, especially in Velocity zones and ACECs, and
- not be used on Coastal Barrier Resource Units for new or substantial reconstruction of structures in a manner inconsistent with the Coastal Barrier Resource/Improvement Acts.

Coastal Hazards Policy #4 - Prioritize public funds for acquisition of hazardous coastal areas for conservation or recreation use, and relocation of structures out of coastal high hazard areas, giving due consideration to the effects of coastal hazards at the location to the use and manageability of the area.

Conformance: To ensure that construction in the harbor will minimize interference with the water circulation and sediment transport, the bottom elevation at the PIN site following construction of the disposal site, disposal activities and final placement of capping materials, will not be higher than the existing bottom elevation. This proposed construction will likely be slightly recessed compared to existing bottom elevations. The effect of this recessed pit is expected to be reduced water column mixing with surrounding waters, and active sedimentation within the pit. In addition, the location of the CAD site outside the main navigation channel will also minimize localized changes in water circulation. The preferred alternative sites have been located so as to provide a sufficient distance to the nearest coastal engineering structure. No impact on the stability of the harbor bottom that would affect the support of the nearby coastal engineering structures is expected, and therefore no adverse effect on any structure's ability to serve a storm damage prevention or flood control functions in the area.

6.1.4.5 Port and Harbor Infrastructure

Ports Policy #1 - Ensure that dredging and disposal of dredged material minimize adverse effects on water quality, physical processes, marine productivity and public health.

Ports Policy #2 - Obtain the widest possible public benefit from channel dredging, ensuring that designated ports and developed harbors are given highest priority in the allocation of federal and state dredging funds. Ensure that this dredging is consistent with marine environment policies.

Ports Policy #3 - Preserve and enhance the capacity of Designated Port Areas (DPAs) to accommodate water-dependent industrial uses, and prevent the exclusion of such uses from tidelands and any other DPA lands over which a state agency exerts control by virtue of ownership, regulatory authority, or other legal jurisdiction.

Ports Management Principle #1 - Encourage, through technical and financial assistance, expansion of water dependent uses in designated ports and developed harbors, re-development of urban waterfronts, and expansion of visual access.

Conformance: The majority of the PIN preferred alternative site is unlikely to be located within New Bedford/Fairhaven Harbor's DPA. Typically, the impact to water quality from dredged material is short-term. Conditions return to ambient conditions within hours to days, depending on the amount, composition, and frequency of the disposed material.

6.1.4.6 Public Access

Public Access Policy #1 - Ensure that developments proposed near existing public recreation sites minimize their adverse effects.

Public Access Management Principle #1 - Improve public access to coastal recreation facilities and alleviate auto traffic and parking problems through improvements in public transportation. Link existing coastal recreation sites to each other or to nearby coastal inland facilities via trails for bicyclists, hikers, and equestrians, and via rivers for boaters.

Public Access Management Principle #2 - Increase capacity of existing recreation areas by facilitating multiple use and by improving management, maintenance and public support facilities. Resolve conflicting uses whenever possible through improved management rather than through exclusion of uses.

Public Access Management Principle #3 - Provide technical assistance to developers of private recreational facilities and sites that increase public access to the shoreline

Public Access Management Principle #4 - Expand existing recreation facilities and acquire and develop new public areas for coastal recreational activities. Give highest priority to expansions or new acquisitions in regions of high need or limited site availability. Assure that both transportation access and the recreational facilities are compatible with social and environmental characteristics of surrounding communities.

Conformance: Construction and use of the PIN CAD site will not significantly interfere with existing navigation. Use of the PIN site will also not significantly interfere with the public rights of free passage over the water, nor will it interfere with access to any city landings, easements or any other form of public access to New Bedford/Fairhaven Harbor. Use of the

preferred alternative site will not significantly interfere with the public rights of fishing and fowling, and being a subaqueous site, will not interfere with on-foot passage, swimming or boating around the site.

6.1.4.7 Energy Policy

Energy Policy #1 - For coastally dependent energy facilities, consider siting in alternative coastal locations. For non-coastally dependent energy facilities, consider siting in areas outside of the coastal zone. Weigh the environmental and safety impacts of locating proposed energy facilities at alternative sites.

Energy Management Principle #1 -Encourage energy conservation and the use of alternative sources such as solar and wind power in order to assist in meeting the energy needs of the Commonwealth.

Conformance: The preferred alternative site is not coastally dependent energy facilities and does not require a power source.

6.1.4.8 Ocean Resources

Ocean Resources Policy #1 - Support the development of environmentally sustainable aquaculture, both for commercial and enhancement (public shellfish stocking) purposes. Ensure that the review process regulating aquaculture facility sites (and access routes to those areas) protects ecologically significant resources (salt marshes, dunes, beaches, barrier beaches, and salt ponds) and minimizes adverse impacts upon the coastal and marine environment.

Ocean Resources Policy #2 - Extraction of marine minerals will be considered in areas of state jurisdiction, except where prohibited by the MA Ocean Sanctuaries Act, where and when the protection of fisheries, air and marine water quality, marine resources, navigation and recreation can be assured.

Ocean Resources Policy #3 - Accommodate offshore sand and gravel mining needs in areas and in ways that will not adversely affect shorelines areas due to alteration of wave direction and dynamics, marine resources and navigation. Mining of sand and gravel, when and where permitted, will be primarily for the purpose of beach nourishment.

Conformance: The preferred alternative disposal site is located within areas that have been designated as areas of LCS as specified in the Wetlands Protection Act and Regulations. As described above, the preferred CAD alternative disposal site is not expected to have an adverse permanent effect on marine fisheries caused by localized alterations in water circulation, alterations in relief elevation, sediment grain size or changes in water quality. Implementation of the preferred CAD cell alternative will require mitigation for impacts to LCS (to be developed with regulatory agencies).

6.1.4.9 Growth Management

Growth Management Principle #1 - Encourage, through technical assistance and review of publicly funded development, compatibility of proposed development with local community character and scenic resources.

Growth Management Principle #2 - Ensure that state and federally funded transportation and wastewater projects primarily serve existing developed areas, assigning highest priority to projects that meet the needs of urban and community development centers.

Growth Management Principle #3 - Encourage the revitalization and enhancement of existing development centers in the coastal zone through technical assistance and federal and state financial support for residential, commercial and industrial development.

Conformance: The preferred alternative site is located in areas of New Bedford/Fairhaven Harbor to support the vision of the Harbor Plan to maintain and develop the harbor as an asset for the communities and region.

6.2 Compliance with Federal Regulations/Standards - Aquatic Disposal

6.2.1 Clean Water Act Section 404(b)(1) Analysis

The Code of Federal Regulations at 40 CFR 230 specifies guidelines for implementing the policies of Section 404(b)(1) of the federal Clean Water Act. The guidelines apply to discharges of dredged or fill materials into navigable waters, and their purpose is to restore and maintain the chemical, physical, and biological integrity of waters of the United States. The guidelines are divided into Subparts A through I. Subpart A is a general discussion of the guidelines. Compliance with more specific requirements is discussed below.

6.2.1.1 Subpart B - Compliance with the Guidelines

(a) The discharge shall not be permitted if there is a practicable alternative which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.

The Alternatives Analysis in Section 4.0 of this FEIR establishes that the preferred alternative is the least environmentally damaging of the alternatives considered.

(b) No discharge shall be permitted if it contributes to the violation of a state water quality standard, violates any applicable toxic effluent standard or prohibition under Section 307 of the Act, jeopardizes the continued existence of endangered or threatened species, or violates any requirement to protect any federally-designated marine sanctuary.

The proposed discharge shall not violate any of these requirements, as discussed in Section 3-0 (Water Quality) and Section 4-0 (Endangered or Threatened Species). The proposed discharge

site is more than 60 miles, via sea, from the closest point of the nearest marine sanctuary, Stellwagen Bank, and will have no effect on it.

(c) No discharge shall be permitted which will cause or contribute to significant degradation of the waters of the United States. This discharge will not cause such degradation, as explained in discussions of the Subparts C through F.

(d) No discharge shall be permitted unless appropriate and practicable steps have been taken to minimize adverse impacts. Steps which will be taken to minimize these impacts are listed in the discussion of Subpart H.

6.2.1.2 Subpart C - Potential Impacts on Physical/Chemical Characteristics of the Aquatic Ecosystem

The discharge will not have a significant impact on physical and chemical characteristics of the ecosystem, as discussed in Section 4.0. Within this section, impacts on sediments are discussed in 4.1; impacts on suspended particulates/turbidity and water column impacts are in 5.0; and current patterns and water circulation in 3.0. The discharge will have no impact on normal water fluctuations, because the proposed disposal location is in an open area where discharges will not interfere with tidal circulation. Since these discharges will not affect circulation and such discharges are not near an area where fresh and salt water mix, it will therefore not affect salinity gradients.

6.2.1.3 Subpart D - Potential Impacts on Biological Characteristics of the Aquatic Ecosystem

The PIN CAD site will have no impact on threatened and endangered species, as discussed in Section 4-0. There are no benthic endangered species in the area which could be covered or otherwise directly killed, and no habitat for these species occurs in any area influenced by the disposal.

The PIN CAD disposal site will not permanently affect fish, crustaceans, mollusks, or other organisms in the aquatic food web. Any benthic organisms affected by disposal will be replaced by recolonizing organisms with aquatic larvae brought in by currents. The dredged material will be capped by clean sediments and therefore the recolonizing organisms will not be affected by toxins or heavy metals.

Other wildlife such as mammals, birds, reptiles, and amphibians will not be affected by the disposal sites. The subsurface open water disposal will not affect their habitat, and any turbidity during disposal will be temporary. Wildlife impacts were discussed in the DEIR (Maguire, 2002).

6.2.1.4 Subpart E - Potential Impacts on Special Aquatic Sites

Sanctuaries and refuges. The preferred alternative PIN CAD l site is not in the vicinity of any designated sanctuaries or refuges.

Wetlands. The preferred alternative PIN CAD site, being in open water removed from shore, will not affect any wetlands, as defined in these guidelines.

Mud flats. The preferred alternative PIN CAD site is all subtidal and will not affect any intertidal mud flats.

Vegetated shallows. Although eelgrass beds do exist in Upper Harbor, they are far enough away from the preferred alternative PIN CAD site so that they will not be affected.

The other two special aquatic sites, coral reefs and riffle and pool complexes, are found only in tropical and subtropical seas and in freshwater streams, respectively, and are not a factor in this project area.

6.2.1.5 Subpart F - Potential Effects on Human Use Characteristics

As a subaqueous disposal site, this project will have no effect on municipal and private water supplies. The preferred alternative PIN CAD site is not in an area of concentration or important migration or spawning areas for species important in recreational or commercial fisheries. Any impacts associated with CAD disposal to the water column or substrate will be temporary and will have no effect on fisheries. Fishery impacts are further discussed in Sections3-0 and 7-0.

Water-related recreation activities will not be affected by disposal. Even if disposal is conducted in the limited period of the year when recreational activities take place, turbidity from disposal, the most probable impact, will be temporary and limited in scope.

The disposal of UDM at the preferred alternative PIN CAD site will have no permanent aesthetic impacts because the subsurface disposal site will not be visible. Temporary changes in appearance of the water will last no longer than the actual disposal operation.

There are no parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves which could be affected by disposal at the preferred alternative PIN CAD sites.

6.2.1.6 Subpart G - Evaluation and Testing

Thorough testing of sediments proposed for dredging from New Bedford/Fairhaven Harbor has been initiated and will be completed in accordance with all regulatory requirements. This includes physical and bulk chemistry testing, bioaccumulation tests, and evaluation of sediment transport and circulation in the vicinity of disposal sites. These results of the chemical and physical testing performed for the FEIR are presented in Sections 3-0.

6.2.1.7 Subpart H - Actions to Minimize Adverse Effects

The following actions, among those listed in Subpart H of the Guidelines, will be taken to minimize averse effects from disposal:

- Confining the discharge to minimize smothering of organisms;
- Designing the discharge to avoid a disruption of periodic water inundation patterns;
- Disposal of dredged material in such a manner that physicochemical conditions are maintained and the potency and availability of pollutants are reduced;
- Selecting discharge methods and disposal sites where the potential for erosion, slumping, or leaching of materials into the surrounding aquatic ecosystem will be reduced;
- Capping in-place contaminated material with clean material or selectively discharging the most contaminated material first to be capped with the remaining material;
- Avoiding changes in water current or circulation patterns which would interfere with the movement of animals;
- Avoiding sites having unique habitat or other value, including habitat of threatened or endangered species;
- Timing discharge to avoid spawning or migration seasons and other biologically critical time periods;

6.2.2 Rivers and Harbors Act of 1899, Section 10

Section 10 of the Rivers and Harbors Act of 1899, authorizes the USACOE to regulate virtually all obstructions to navigation within navigable waters the United States. This section defines navigable waters as *"those waters of the United States that are subject to the ebb and flow of the tide shoreward to the mean high water mark and/or are presently used, or have been used in the past or may be susceptible to use to transport interstate or foreign commerce"*. Because all the dredging projects identified in New Bedford/Fairhaven Harbor are located in navigable waters, they will require a Section 10 permit from the USACE.

6.2.3 Marine Protection, Research and Sanctuaries Act (MPRSA)

The Marine Protection, Research and Sanctuaries Act (MPRSA) of 1972, also known as the Ocean Dumping Act, requires obtaining a permit for discharging some wastes (such as dredged material) and prohibits disposal of others (including radioactive wastes, chemical and biological warfare wastes). Three primary sections of the MPRSA apply to dredging projects:

(1) Section 102 - This section empowers the USEPA to establish the criteria for evaluating all dredged material for open ocean disposal. Section 102 also authorizes USEPA to designate ocean dredged material disposal sites such as CCDS and MBDS.

(2) Section 103 - USACOE has the authority issue Section 103 permits, with concurrence from the USEPA, to dispose of dredged material in the open ocean. The permitting process includes public notice, public hearings, compliance with USEPA criteria, and the use of designated disposal sites, when possible.

(3) Section 104 - The USEPA and the USACOE have the authority to place conditions upon any aspect of ocean disposal operations to minimize negative environmental impacts. Typical conditions are imposed on the type and volume of dredged material, timing and location of disposal, and surveillance and monitoring of disposal activities.

The preferred alternative PIN CAD cell site for New Bedford/Fairhaven Harbor will not require approval under the MPRSA. However, projects including the transportation and disposal of dredged material, CAD disposal options, to either CCDS or MBDS will require testing and approval under the MPRSA.

6.2.4 Endangered Species Act - Section 7

The Endangered Species Act of 1973, protects federally listed and proposed threatened and endangered species. Section 7 of the Act requires the consultation with USFWS and NMFs and an opinion statement. This project is being coordinated with NMFS and the USFWS to determine whether any endangered or threatened species under their jurisdiction may be affected by use of the preferred alternative PIN CAD site in New Bedford/Fairhaven Harbor. To date, staff of NMFS and USFWS have participated in the review of the preliminary upland, aquatic and dewatering site screening processes and have indicated their concurrence with the results of the screening. As the final preferred alternative is selected in this FEIR, CZM has continued to coordinate with both NMFS and USFWS staff in the Section 7 consultation process.

6.2.5 Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA)

The MSFCMA authorizes the NMFS to establish Essential Fish Habitat (EFH) areas. The general purpose of the act is to conserve productive fisheries that provide recreational and commercial benefit. EFH is defined as “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity” and all of New Bedford/Fairhaven Harbor is classified as EFH.

Under section 305(b) of the Act, coordination between federal agencies is required for any work proposed within an EFH. The intent and procedures of the Act are very similar to the Endangered Species Act (ESA). CZM has been coordinating with NMFS and USFWS in accordance with Section 7 of the ESA as well as the MSFCMA.

6.2.6 Executive Orders 11988 and 11990

Executive Order 11988 directs federal agencies to avoid long and short term adverse impacts associated with the occupancy and modification of floodplains. Because their construction would not result in any reduction in flood storage, the preferred alternative PIN CAD site would be consistent with this policy.

Executive Order 11990 directs federal agencies to avoid the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid new construction in wetland areas wherever there is a practicable alternative. Where avoidance is not practicable, agencies must take actions to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agencies' responsibilities. Implementation of the preferred alternative PIN CAD will not involve the long term modification of wetlands.